



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,705	03/27/2006	Katsumi Tokumoto	287610US0PCT	7106
22850 7590 06/15/2011 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER COONEY, JOHN M				
ART UNIT 1765		PAPER NUMBER		
NOTIFICATION DATE 06/15/2011		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary

Application No.

10/573,705

Applicant(s)

TOKUMOTO ET AL.

Examiner

JOHN COONEY

Art Unit

1765

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-6 and 8-23 is/are pending in the application.
- 4a) Of the above claim(s) 8-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6 and 16-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-945)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 20110519
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8-20-10 has been entered.

Election/Restrictions

Group 1, claims 1-7, have been examined.

Elected amine compound (A), tetramethylammonium acetate, has been examined.

Elected amine compound (B), N,N-dimethyldodecylamine, has been examined.

Elected amine compound (C), 1,2-dimethylimidazole, has been examined.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 17 & 19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to

one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants' originally filed supporting disclosure lacks support for the ranges of weight ratio values now claimed. The limited disclosure of values associated with the now defined range of values for specific compositions within the ranges of materials encompassed by the scope of applicants' claims are insufficient in supporting the invention now defined by this claim. This is a new matter rejection.

Applicants' arguments have been considered. However, rejection is maintained. It is maintained that support indicated from the examples does not provide support for the invention as now claimed. The values from the examples that applicants are looking to for support of the ranges of values now claimed are directed towards particular selections of (A) & (B) and (A) & (C), respectively, in a very specifically formulated solution of solvent/diluent. Though, generally, one may say that since (A) & (B) and (A) & (C), respectively, are disclosed generically in term of amount, they, therefore, have support for any amount, it is not seen or agreed that such is the case in the instant situation. Applicants' supporting disclosure does not satisfy the fundamental factual inquiry of whether the specification conveys with reasonable clarity to those skilled in the art that, as of the filing date sought, applicant was in possession of the invention as now claimed. (See, e.g., *Vas-Cath, Inc.*, 935 F.2d at 1563-64, 19 USPQ2d at 11). Applicants are carving a range of values for the overall combinations defined by their claims from a selection of examples involving particularly amounts of particular

compounds contained in solvent/diluents in particularly formulated volumetric ratios. It is not seen or agreed that these particularly formulated arrangements of the specification provide support for these new limitations to claim 17 & 19. These particularly formulated arrangements of the specification are lacking in description of an original possession of the ranges of amounts along with the associated ranges of compound dissolution degrees now claimed.

With respect to changing numerical range limitations, the analysis must take into account which ranges one skilled in the art would consider inherently supported by the discussion in the original disclosure. In the decision in *In re Wertheim*, 541 F.2d 257, 191 USPQ 90(CCPA 1976), the ranges described in the original specification included a range of "25%- 60%" and specific examples of "36%" and "50%." A corresponding new claim limitation to "at least 35%" did not meet the description requirement because the phrase "at least" had no upper limit and caused the claim to read literally on embodiments outside the "25% to 60%" range, however a limitation to "between 35% and 60%" did meet the description requirement. In the instant case, the originally filed supporting disclosure does not even provide an original range of values from which the new ranges of values of the claims are derived. Moreover, the originally filed supporting disclosure provides no guidance to the ordinary practitioner in regards to the additional factor of solvent/diluent inclusion along with the compounds in question.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5, 6, 18, 19, 22 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The new wording of the claims raise issues of indefiniteness as to whether at least one from each of the groups of compounds are required to meet the requirements of the claims, or if just at least one from (A) and (C) are required to meet the claims.

Claim 5 needs to be amended in the same manner as claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 16, 17, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zama et al.(5,171,787).

Zama et al. discloses condensation catalyst which may include the elected catalysts of applicants' claims (see column 6 lines 19-31).

Zama et al. differs from applicants' claims in that selection of more than one of the selected catalysts is not required. However, the reference is clear in its disclosure of the catalysts and their function of catalyzing condensation reactions, and it has been held by the court that "it is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." In *re* Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980)(M.P.E.P. 2144.06 I.) and the mere duplication of parts has no patentable significance unless a new or unexpected result is produced. (See *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960), as well as, M.P.E.P. 2144.04 VI. B.). Accordingly, it would have been obvious for one having ordinary skill in the art to have employed multiple catalysts of Zama et al. in the formation of preparations of Zama et al. for the purpose of duplicating their effect in order to arrive at the products of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

Claims 4-6, 18,19, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zama et al. as applied to claims 1-3, 16 and 17 above, and further in view of Decker et al.(5,997,954).

Claims differ in that they do not employ the elected compound (C) of applicants' claims. However, Decker et al. discloses 1,2-dimethylimidazole to be a well known

condensation catalyst (column 6 lines 45-53). Accordingly, it would have been obvious for one having ordinary skill in the art to have employed the 1,2-dimethylimidazole condensation catalyst of Decker et al. as a condensation catalyst in the preparations of Zama et al. for the purpose of imparting its condensation catalytic effect in order to arrive at the products of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results. Hereto it applies that "it is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980)(M.P.E.P. 2144.06 I.) and the mere duplication of parts has no patentable significance unless a new or unexpected result is produced. (See *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960), as well as, M.P.E.P. 2144.04 VI. B.).

Applicants' arguments concerning the above rejection under 35 USC 103 have been considered. However, rejections are maintained.

The following previous arguments are maintained to be relevant:

Consideration of applicants' arguments and discussion of results have been considered. However, the results discussed do not correlate with the invention that has been examined. There are no showings of new or unexpected results identified that show unexpected results attributable to the examined combinations of elected Amine Compound (A) and elected Amine Compound (B) (tetramethylammonium acetate with N,N-dimethyldodecylamine) or combinations of elected Amine Compound (A), elected

Amine Compound (B) & elected amine compound (C) (tetramethylammonium acetate with N,N-dimethyldodecylamine & 1,2-dimethylimidazole). Further, regarding results, it is seen that comparisons would need to show comparative showings demonstrating new or unexpected results attributable to combinations of (A) and (B) representative of the ratios of amounts of (A) and (B) encompassed by the claims as they currently stand. Similarly, for claims including (A), (B) and (C), comparatives would need to show criticality associated with the combination of the three components, and such a showing would need to be commensurate in scope with the range of ratios of amounts encompassed by the claims.

There are currently no showings of record demonstrating criticality for the elected combination of (A) & (B), for the elected combination of (A),(B), and (C), or, correspondingly, for the ranges of ratios of amount values of the respective elected components encompassed by the claims.

Further, the results of record can not be correlated to the combinations of record because it has not been established on the record by applicants that the individual species of each of Amine Compound (A), (B) & (C), respectively, are obvious variants of one another.

Though the results discussed in applicants' reply may be associated with effects that could be seen as new or unexpected, a determination of whether the results are, in fact, new or unexpected can not be made because they can not be associated with the invention that has been examined and is rejected in the rejections above.

As to new claims 16-19, these claims identify differing arrangements of species which include the elected species addressed above. Accordingly, they are not withdrawn. However, they are addressed by the rejections and remarks hereinabove. As to the ranges of amount values identified in these new claims, it has long been held that where the general conditions of the claims are disclosed in the prior art, discovering the optimal or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233; *In re Reese* 129 USPQ 402. Further, a prima facie case of obviousness has been held to exist where the proportions of a reference are close enough to those of the claims to lead to an expectation of the same properties. *Titanium Metals v Banner* 227 USPQ 773. (see also MPEP 2144.05 I) Similarly, it has been held that discovering the optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980). It is held and maintained that criticality has not been established for these new ranges of values claimed.

The remarks made in the advisory action dated 7/29/10 are seen to be still applicable here:

Upon closer consider of response and papers of record, applicants' reply is insufficient in establishing allowability for the claims as they stand or are proposed. While it may be acceptable for applicants to establish that other members of the group

are homologs and/or obvious variants of one another, the current evidence of record does not make such evident. This position relates also to the position set forth by examiner in the 2nd to last paragraph of the final Office action. Applicants' evidence and arguments made on reply and in the interview dated 6/3/10 do not address this requirement, and it remains that burden is upon applicants to demonstrate that these related species are homologues and/or obvious variants of one another. The current evidence of record, including the examples, are insufficient in fulfilling applicants' burden in that there are no back to back demonstrations of close or obvious variation in critical effects associated with the employment of the species of instant concern. It is noted here also that burden is upon applicants to demonstrate the other species are homologues and/or non-obvious variants for each of the groups of compounds for which such allegations are being made. Further, it still remains that a commensurate in scope showing of new or unexpected results attributable to differences in the claims has not been made even if applicants were to establish that the extended listing of species for each of the three groups of compounds were homologues and/or obvious variants of one another.

Applicants' new arguments on reply are unpersuasive. The MPEP 2144.09 & 2144.08 cites referred to by applicants are concerned with Office expectations concerning homologs in establishing a prima facie case of obviousness. The holdings in MPEP 2144.09 & 2144.08 are not relevant to the situation of the instant concern. From the standpoint of establishing new or unexpected results attributable to the elected invention of applicants' claims, it is not acceptable for criticality of the elected species to be demonstrated through demonstration of the criticality of another species, even if it is a close homolog, unless it is established on the record that they may be considered functional equivalents and, accordingly, obvious variants. If and when such equivalence is established, then it is seen that reliance on the homolog in question may be acceptably utilized in coming forward with a showing of new or unexpected results that is commensurate in scope with the scope of the claims as they currently stand. Currently, the evidence of record lacks establishing (1.) that tetraethylammonium

acetate is functionally equivalent to tetramethylammonium acetate, and, (2.) regardless of whether such equivalence is established, a showing of new or unexpected results that are commensurate in scope with the scope of the claims as they currently stand.

Moreover, it is seen that if applicants wish to assert functional equivalence between non-elected species of the invention and the currently elected and examined species of the invention, then such admission must be made of record. At which point examination will be opened to the examination of all species admitted, on the record, to be functionally equivalent and obvious variant of one another.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Cooney whose telephone number is 571-272-1070. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/John Cooney/
Primary Examiner, Art Unit 1765